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(54) Electronic data storage apparatus with key management function and electronic data storage method

(57) A storage apparatus includes a key management unit (12) for managing an individual key unique to the apparatus and a common key shared with other storage apparatuses, and an encryption unit (13) for performing an encrypting process or verifying data for performing the encrypting process on electronic data stored in the apparatus to which the unit belongs using the in-

dividual key, and performing the encrypting process or verifying the data on the electronic data transmitted to or received from another apparatus using the common key. Thus, the apparatus communicates data using an applicable common key in a local environment and a global environment, appropriately manages a key in each environment, and guarantees the security of the electronic data.

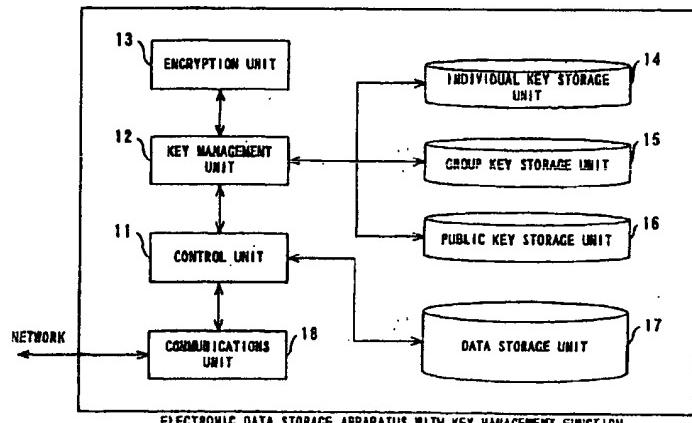


FIG. 2



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EUROPEAN SEARCH REPORT

Application Number

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A	---	15,16	
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A	---	1-14, 17-23	
		-/-	
<p>The present search report has been drawn up for all claims</p>			
Place of search	Date of completion of the search	Examiner	
BERLIN	1 August 2003	Carnerero Álvaro, F	
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons R : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			



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EUROPEAN SEARCH REPORT

Application Number
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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.)
A	MENEZES, OORSCHOT, VANSTONE: "Handbook of applied cryptography" HANDBOOK OF APPLIED CRYPTOGRAPHY, CRC PRESS SERIES ON DISCRETE MATHEMATICS AND ITS APPLICATIONS, CRC PRESS , 1997. pages 568, 570-572, XP002249713 BOCA RATON, FL, US ISBN: 0-8493-8523-7 * page 568, paragraph 13.5.2.I - paragraph 13.33 * * page 570, paragraph 13.6 - page 572, paragraph 13.40 * -----	1-23	
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Place of search BERLIN	Date of completion of the search 1 August 2003	Examiner Carnerero Álvaro, F	
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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 99 30 4647

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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